

MediaSense缺少录制的媒体故障排除提示

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简介

本文档介绍在MediaSense(MS)上发现的导致服务器上丢失录音或无法播放的常见问题。

先决条件

要求

思科建议您了解以下主题：

- 思科MS
- 思科统一联系中心快捷版(UCCX)
- 思科统一通信管理器 (CUCM)

使用的组件

本文档中的信息基于以下软件和硬件版本：

- MS 10.5和后者
- Call Manager 11.0

本文档中的信息是从特定生产环境中的设备创建的。本文档中使用的所有设备最初均采用原始（默认）配置。如果您的网络处于活动状态，请确保您了解所有命令的潜在影响。

背景信息

在MS上遇到的最常见问题之一是，由于介质从MS中删除，它无法访问录制。本文档介绍如何更好地排除这些类型的场景故障，以帮助了解为什么录制的介质不在MS上。

问题

您无法播放MS搜索和播放的录制。磁道大小显示00:00:00，录音左侧有黄色感叹号，表示没有图像中所示的介质。

Search Recording by Participants or Tags Search Sort by: Oldest t

Search Results as of 2016/03/01, 11:50 GMT+09:00

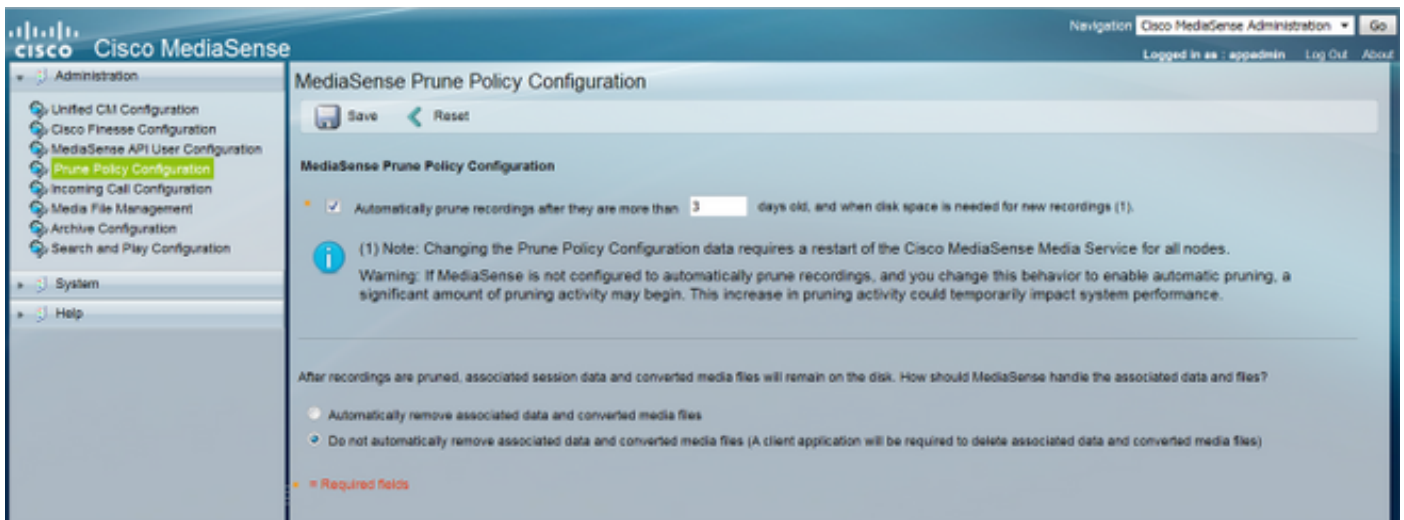
Extension	Login Id	Last Name	First Name	Login Name	Line Name	XRefci	CCID	Codec	Time
3903	-	-	-	-	-	34640370	-	MP4A-LATM	00:00:00
3901	3901	TEST	01	3901	TEST 01	34640369	-	MP4A-LATM	00:00:00

最常见的问题

已修剪的媒体

如果MS上的修剪配置已通过特定年龄，或者如果较新的录制需要更多磁盘空间，则可以修剪这些录制。

您可以在以下位置找到修剪设置：**Cisco MediaSense管理>管理>修剪策略配置**。如果选择“**不自动删除关联数据并转换的媒体文件**”设置，则当从服务器中删除录制时，其元数据将保留，并显示带有错误“记录已取消”或“零大小跟踪”的黄色感叹号，如图所示。



验证此情况的最快方法是使用媒体服务生成的groom.log。

年龄修剪

您可以从实时监控工具(RTMT)的媒体服务日志收集收集groom.log和/orapurge.log，或者快速使用命令行界面(CLI):

注意：新建日志显示原始SMD文件，该文件与媒体服务的MySQL数据库中的会话ID关联。从SMD文件获取会话ID会很麻烦，因为它需要根访问服务器。这些日志只是为了了解已修剪的录音的年代才有用。

例如，这些日志显示从2017年1月4日开始的录制被修剪：

```
admin:file view activelog /ora/logs/media/groom.log
|2017-01-05 15:04:37.169| 10093: RUNNING min 86400 secs max 1 days evtmax 1 days
|2017-01-05 15:04:37.169| RETENTION groom /recordedMedia/10093/20170104/586d4513.smd
|2017-01-05 15:04:37.172| RETENTION groom /recordedMedia/10093/20170104/586d463f.smd
|2017-01-05 15:04:37.190| PRUNED DB config before Wed Jan 4 16:11:49 2017

|2017-01-05 15:04:37.252| 10198: RUNNING min 86400 secs max 1 days evtmax 1 days
|2017-01-05 15:04:37.252| RETENTION groom /recordedMedia/10198/20170104/586d45e8.smd
|2017-01-05 15:04:37.272| PRUNED DB config before Wed Jan 4 16:07:41 2017

|2017-01-05 15:04:37.291| 10055: RUNNING min 86400 secs max 1 days evtmax 1 days
|2017-01-05 15:04:37.291| RETENTION groom /recordedMedia/10055/20170104/586d4632.smd
|2017-01-05 15:04:37.311| PRUNED DB config before Wed Jan 4 16:10:05 2017
```

orapurce.logshow会话ID和跟踪编号显示更详细的信息：

```
admin: file view activelog /ora/logs/media/orapurge.log
2017-01-10 14:50:26.551 [ OraSessionPurge(19409) ORA_PURGE=1 <OraSessionPurge.cpp:71> ]
OraSessionPurge purging begins...
2017-01-10 14:50:27.189 [ OraSessionPurge(19409) ORA_PURGE=1 <OraSessionPurge.cpp:106> ]
Recording id 10000 first time 1483988829 (5873df5d)
2017-01-10 14:50:27.190 [ OraSessionPurge(19409) ORA_PURGE=1 <OraSessionPurge.cpp:114> ] Found 0
clips below requested time
2017-01-10 14:50:27.190 [ OraSessionPurge(19409) ORA_PURGE=1 <OraSessionPurge.cpp:106> ]
Recording id 10001 first time 1483993518 (5873f1ae)
2017-01-10 14:50:27.191 [ OraSessionPurge(19409) ORA_PURGE=1 <OraSessionPurge.cpp:114> ] Found 1
clips below requested time
```

2017-01-10 14:50:27.193 [OraSessionPurge(19409) ORA_PURGE=1 <OraSessionPurge.cpp:142>] ORA session 56e21598489cf631-TRACK0 has been groomed and is now removed

按年龄划分的跟踪记录修剪示例日志分析

在本示例中，您看到录制被修剪的速度比90修剪设置快得多。

在ORA-ora日志中，您看到会话ID为56e5159848cca971的录制进入MS，但进入正常状态并关闭，并处于CLOSED_NORMAL状态。

录制开始于纪元时间1483987536761，即'星期一1月9日13:45:36 2017 GMT-5:00'。

您也会看到此处的媒体URL，其中显示已保存的录制。

```
0005394466: 10.45.2.17: Jan 10 2017 14:58:09.955 -0400: %CCBU_API-7-TRACE: {Thrd=AMS-pool-1-
thread-8} Result from the command -
{"responseMessage":"Success: Your request was successfully
completed.", "responseCode":2000, "responseBody":... (removed for brevity)

{"sessionState": "CLOSED_NORMAL", "callControllerType": "Cisco-
CUCM", "sessionId": "56e5159848cca971", "urls": {"httpUrl": "https://10.45.2.17:8446/recordedMedia/or
amedia/mp4/56e5159848cca971.mp4", "rtspUrl": "rtsp://10.45.2.17/archive/56e5159848cca971", "mp4Url"
: "https://10.45.2.17:8446/recordedMedia/oramedia/mp4/56e5159848cca971.mp4", "wavUrl": "https://10.
45.2.17:8446/recordedMedia/oramedia/wav/56e5159848cca971.wav"}, "sessionStartDate": 1483987536761,
"tracks": [{"trackStartDate": 1483987536761, "trackDuration": 166256, "codec": "PCMU", "downloadUrl": "h
ttps://10.45.2.17:8446/mma/ExportRaw?recording=56e5159848cca971-
TRACK1", "trackNumber": 1, "trackMediaType": "AUDIO", "participants": [{"participantStartDate": 1483987
536761, "deviceRef": "7876050871", "isConference": false, "xRefCi": "40461072", "participantDuration": 1
66256, "deviceId": "DOM-WAN-
RT1"}]}, {"trackStartDate": 1483987536761, "trackDuration": 166256, "codec": "PCMU", "downloadUrl": "htt
ps://10.45.2.17:8446/mma/ExportRaw?recording=56e5159848cca971-
TRACK0", "trackNumber": 0, "trackMediaType": "AUDIO", "participants": [{"participantStartDate": 1483987
536761, "deviceRef": "3204", "lineDisplayName": "SIN ASIGNAR AREA
CAJA", "isConference": false, "xRefCi": "18891730", "participantDuration": 166256, "deviceId": "SEP00CCF
C16F00D"}]}], "sessionDuration": 166256, "callControllerIP": "10.64.0.12"}
```

您会在orapurge.log中看到此录音已清除。Track1和Track0用于录音中的不同方：

```
2017-01-10 15:00:26.539 [ OraSessionPurge(19409) ORA_PURGE=1 <OraSessionPurge.cpp:71> ]
OraSessionPurge purging begins...
2017-01-10 15:00:27.205 [ OraSessionPurge(19409) ORA_PURGE=1 <OraSessionPurge.cpp:106> ]
Recording id 10000 first time 1483988829 (5873df5d)
2017-01-10 15:00:27.205 [ OraSessionPurge(19409) ORA_PURGE=1 <OraSessionPurge.cpp:114> ] Found 0
clips below requested time
2017-01-10 15:00:27.206 [ OraSessionPurge(19409) ORA_PURGE=1 <OraSessionPurge.cpp:106> ]
Recording id 10001 first time 1483993518 (5873f1ae)
...
2017-01-10 15:00:27.239 [ OraSessionPurge(19409) ORA_PURGE=1 <OraSessionPurge.cpp:106> ]
Recording id 10043 first time 1483994599 (5873f5e7)
2017-01-10 15:00:27.239 [ OraSessionPurge(19409) ORA_PURGE=1 <OraSessionPurge.cpp:114> ] Found 1
clips below requested time
2017-01-10 15:00:27.242 [ OraSessionPurge(19409) ORA_PURGE=1 <OraSessionPurge.cpp:142> ] ORA
session 56e5159848cca971-TRACK1 has been groomed and is now removed
...
2017-01-10 15:00:27.464 [ OraSessionPurge(19409) ORA_PURGE=1 <OraSessionPurgep.cpp:193> ]
OraSessionPurge purging completes.
```

ORA-ora日志显示已修剪的会话，它包括以前显示的会话：

```

0005395238: 10.45.2.17: Jan 10 2017 15:02:47.745 -0400: %CCBU_API-6-PRUNE_SESSIONS_COMMAND:
{Thrd=AMS-pool-1-thread-10} %[message=(Prune id = ORA.11.0.1.10000-103.ReplyTo.1.MMA.MMA1-
1484074962694-1, # sessions = 6)]: Response to Prune Sessions Command
0005395239: 10.45.2.17: Jan 10 2017 15:02:47.746 -0400: %CCBU_API-7-TRACE: {Thrd=AMS-pool-1-
thread-10} deletePrunedSessions(Operation Id: 1386, # sessions: 6) begin transaction duration :
0
0005395240: 10.45.2.17: Jan 10 2017 15:02:47.813 -0400: %CCBU_API-7-TRACE: {Thrd=AMS-pool-1-
thread-10} deletePrunedSessions(Operation Id: 1386, # sessions: 6) commit duration : 37
0005395241: 10.45.2.17: Jan 10 2017 15:02:47.813 -0400: %CCBU_API-7-TRACE: {Thrd=AMS-pool-1-
thread-10} deletePrunedSessions(Operation Id: 1386, # sessions: 6) transaction duration : 66
0005395242: 10.45.2.17: Jan 10 2017 15:02:47.813 -0400: %CCBU_API-7-TRACE: {Thrd=AMS-pool-1-
thread-10} deletePrunedSessions(Operation Id: 1386, # sessions: 6) method duration : 67
0005395243: 10.45.2.17: Jan 10 2017 15:02:47.813 -0400: %CCBU_API-7-TRACE: {Thrd=AMS-pool-1-
thread-10} deletePrunedSessions(Operation Id: 1386, # sessions: 6) deletable sessions: 6,
deleted sessions: 6

```

这显示6个已修剪会话：

```

0005395244: 10.45.2.17: Jan 10 2017 15:02:47.813 -0400: %CCBU_API-6-PRUNE_SESSIONS_RESPONSE:
{Thrd=AMS-pool-1-thread-10} %[message=PruneSessionsResponse[Response,prune.id=ORA.11.0.1.10000-
103.ReplyTo.1.MMA.MMA1-1484074962694-1,status=SUCCESS,sessions(6)=[56e5159848cca971,
56e6159848cedb61, 56e7159848ddf241, 56e8159848de26c1, 56e91598490f5bd1,
56ea1598493582c1],seqnum=2780,header=MessageHeader[ jmsType=ORA.AMS.PruneSessionsResponse,id=null
,corrId=null,ssId=API1,ssType=API,dest=ORA.11.0.1.10000-
103.ReplyTo.1.MMA.MMA1,replyTo=null,kind=RESPONSE,reqId=MMA.MMA1.1484074967738.1654,reqTimeout=1
80000,alwaysDeliverResponses=true,msgVersion=[1, 1,
1],timestamps={created=1484074967813}],state=CREATED,sequenced=false,msg={null}]]: Response to
Prune Sessions Response

```

空间修剪

您还可以看到何时删除录制以回收新录制的磁盘空间。当MS达到/recordedMedia分区达到90%的临界条件时，会修剪较旧的录制（即使低于年龄阈值）以为新的录制腾出空间。MS会修剪200个录制，直到磁盘空间处于或低于86%。

```

admin:file view activelog /ora/logs/media/groom.log
|2016-10-03 16:09:51.669| Volume /recordedMedia OVERSUBSCRIBED at 87%, need to get to 86%
|2016-10-03 16:09:51.669| Attempting 0 of max attempts[ 20 ]
|2016-10-03 16:09:54.729| OVERSUBSCRIPTION groom /recordedMedia/10054/20160902/57c9d313.smd
|2016-10-03 16:09:54.730| OVERSUBSCRIPTION groom /recordedMedia/10068/20160902/57c9d313.smd
|2016-10-03 16:09:54.734| OVERSUBSCRIPTION groom /recordedMedia/10073/20160902/57c9d314.smd
|2016-10-03 16:09:54.734| OVERSUBSCRIPTION groom /recordedMedia/10092/20160902/57c9d314.smd

```

存档前修剪

在MS 10.5中引入了将存档记录到SFTP服务器。在某些情况下，在进行存档之前，可以删除媒体。一个常见问题是与SFTP服务器的连接断开，而且，尽管已提前很长时间存档记录，但MS由于与SFTP服务器的连接问题而无法进行存档。如果存档尝试失败，MediaSense会反复尝试存档记录。

以下是您在/var/log/active/ora/logs/storagemanagement/ORA-storagemanagementagent.YYY-MM-DDTHH-MM-SS.sss.log中看到的示例：

```
admin: file view activelog /ora/logs/media/storagemanagement/ORA-
```

storagemanagementagent.YYY-MM-DDTHH-MM-SS.sss.log

存档会话ID:ebcf45708f010bc1

SFTP服务器IP:10.75.41.225

MS将录制转换为MP4进行存档：

```
0010755845: 10.75.41.210: Sep 08 2016 20:33:09.068 -0500: %CCBU_MMA-6-CONVERT_SESSION_REQUEST:
{Thrd=pool-14-thread-107845}
%[message_string=ConvertSessionTask-185682: Sending response
ConvertSessionResponse[Response,session=ebcf45708f010bc1,
status=SUCCESS,url=http://10.75.41.210:8081/recordedMedia/oramedia/mp4/ebcf45708f010bc1.mp4,details=Success,seqnum=1528709,
header=MessageHeader[jmsType=ORA.MMA.ConvertSessionResponse,id=null,corrId=null,ssId=MMA1,
ssType=MMA,dest=ORA.10.5.1.10000-
23.ReplyTo.1.AMS.API1,replyTo=null,kind=RESPONSE,reqId=API.API1.1473384786428.476820,
reqTimeout=7200000,alwaysDeliverResponses=false,msgVersion=[1, 1,
1],timestamps={created=1473384789060}],
state=CREATED,sequenced=false,msg={null}]]:
```

MS处理转移录音的请求：

```
0010755846: 10.75.41.210: Sep 08 2016 20:33:09.073 -0500: %CCBU_MMA-6-MSG_INCOMING_FROM_BUS:
{Thrd=ActiveMQ Session Task-2315}
%[correlation_id=null][mid=ID:TacMS-60118-1471342398443-
3:3:2:1:477533][msg_kind=ActiveMQMapMessage][
msg_type=ORA.MMA.TransferSessionRequest]: A message has been received by the message bus
```

```
0010755847: 10.75.41.210: Sep 08 2016 20:33:09.074 -0500: %CCBU_MMA-6-
TRANSFER_SESSION_EVENT_INFO: {
Thrd=pool-1-thread-20-MMA1-1409831} %[event.type=Adding to execute TransferSessionTask-291323,
sessionName=ebcf45708f010bc1: ]
[message=]: TransferSession
```

MS尝试连接到SFTP服务器，但是由于Java安全通道(JSch)异常而失败。JSch是MS用于其SSH客户端的SSHv2的Java实现：

```
0010755848: 10.75.41.210: Sep 08 2016 20:33:09.074 -0500: %CCBU_MMA-6-
TRANSFER_SESSION_EVENT_INFO: {Thrd=pool-1-thread-8-MMA1-1409832}
%[event.type=SFTP Trace Level (1) - Connecting to 10.75.41.225 port 22][message=]:
TransferSession
```

```
0010755849: 10.75.41.210: Sep 08 2016 20:33:09.076 -0500: %CCBU_MMA-3-CONVERT_SESSION_ERROR:
{Thrd=pool-1-thread-8-MMA1-1409832} %[exception=][message=TransferSessionTask-291323,
sessionName=ebcf45708f010bc1:
Exception][message_string=com.jcraft.jsch.JSchException: java.net.ConnectException: Connection
refused]:
```

```
0010755850: 10.75.41.210: Sep 08 2016 20:33:09.076 -0500: %CCBU_MMA-3-EXCEPTION_INFO:
{Thrd=pool-1-thread-8-MMA1-1409832}
%[build_date=Jan 16, 1970 11:38 PM][build_type=rel][exception=com.jcraft.jsch.JSchException:
java.net.ConnectException: Connection refused
at com.jcraft.jsch.Util.createSocket(Util.java:349)
at com.jcraft.jsch.Session.connect(Session.java:215)
at com.jcraft.jsch.Session.connect(Session.java:183)
at
com.cisco.ora.mediamanageragent.msgs.TransferSessionTask.createSftpSession(TransferSessionTask.j
ava:479)
at
```

```
com.cisco.ora.mediamanageragent.msgs.TransferSessionTask.fileExists(TransferSessionTask.java:417
)
at
com.cisco.ora.mediamanageragent.msgs.TransferSessionTask.getAction(TransferSessionTask.java:121)
at com.cisco.ora.mediamanageragent.msgs.TransferSessionTask.run(TransferSessionTask.java:203)
at com.cisco.ccbu.infra.threads.InstrumentedRunnable.run(InstrumentedRunnable.java:92)
at java.util.concurrent.ThreadPoolExecutor$Worker.runTask(ThreadPoolExecutor.java:886)
at java.util.concurrent.ThreadPoolExecutor$Worker.run(ThreadPoolExecutor.java:908)
at java.lang.Thread.run(Thread.java:662)
at com.cisco.ccbu.infra.threads.ThreadPoolThread.run(ThreadPoolThread.java:164)
Caused by: java.net.ConnectException: Connection refused
at java.net.PlainSocketImpl.socketConnect(Native Method)
at java.net.PlainSocketImpl.doConnect(PlainSocketImpl.java:351)
at java.net.PlainSocketImpl.connectToAddress(PlainSocketImpl.java:213)
at java.net.PlainSocketImpl.connect(PlainSocketImpl.java:200)
at java.net.SocksSocketImpl.connect(SocksSocketImpl.java:366)
at java.net.Socket.connect(Socket.java:529)
at java.net.Socket.connect(Socket.java:478)
at java.net.Socket.<init>(Socket.java:375)
at java.net.Socket.<init>(Socket.java:189)
at com.jcraft.jsch.Util.createSocket(Util.java:343)
... 11 more
```

来自CUCM的编解码器协商失败

本示例使用内置网桥(BiB)记录。在CUCM/MS词汇中，近端设备是将音频传输到MS的设备，如果电话配置了BiB录制，则这是CUCM电话。远端设备是向记录设备传输介质的设备。在大多数情况下，这是CUCM SIP中继，是PSTN电话的SIP信令来自的设备。等效地，您可以想到，近端信令是由记录的设备传输的，而远端信令是从记录的设备接收的。

在本示例中，您可以从MS搜索和播放中看到以下呼叫信息：

```
Session ID: 745a15454b0e7f62
ERROR: Record Response Fail 11/11/2016 10:40 GMT-08:00 Calling: 5255553333 xrefCI: 71234316
Codec Listed: G729 Called : 555666 xrefCI: 71233302 Codec Listed: none
```

您会看到，从CUCM电话到MS SIP中继的近端呼叫可能出现编解码器协商失败。xrefCI是实际呼叫的CUCM CI，而不是MS记录的呼叫的CUCM CI。

```
These two CIs comprises one SIP Call-ID for the audio call between the two phones.
DN: 5255553333 <-- CI: 71234316 --> CUCM <-- CI: 71233302 --> DN: 555666
```

在CUCM日志上，要记录呼叫的CI如下：

```
These two CIs comprise one SIP Call-ID for the near-end recorded call.
DN: 555666 <-- CI: 71233611 --> CUCM <-- CI: 71233612 --> MS SIP Trunk 'DN': 4321
```

```
These two CIs comprise one SIP Call-ID for the far-end recorded call.
DN: 5255553333 <-- CI: 71233614 --> CUCM <-- CI: 71233615 --> MS SIP Trunk 'DN': 4321
```

MS日志

近端呼叫：

首次邀请MS收到：呼叫ID:50459200-8261109d-125c82-2080fe0a@10.1.1.60。

0000724480: 10.55.100.23: Nov 11 2016 12:40:29.637 -0600: %CCBU_CALL_CONTROL-6-BORDER_MESSAGE:
{Thrd=Pool-sip-thread-17475} %[message_string=process new Invitation: SipCall-17502,
INBOUND_RECORDING, null, State=ALERTED: , processing=7
INVITE sip:4321@10.55.100.23:5060 SIP/2.0
Via: SIP/2.0/TCP 10.1.1.60:5060;branch=z9hG4bK201ee04b9db528
Max-Forwards: 69
To: <sip:4321@10.55.100.23>
From: "(Operator) Jared TAC" <sip:555666@10.1.1.60;x-nearend;x-refci=71233302;x-
nearendclusterid=TACOp;x-nearenddevice=SEP002497A964CF;x-nearendaddr=555666;x-
farendrefci=71234316;x-farendclusterid=TACOp;x-farenddevice=10.15.255.254;x-
farendaddr=5255553333>;tag=3695142~47718da5-fef5-1f81-1709-6f389f40258a-71233612
Call-ID: 50459200-8261109d-125c82-2080fe0a@10.1.1.60
CSeq: 101 INVITE
Content-Length: 0
Date: Fri, 11 Nov 2016 18:40:29 GMT
Supported: timer,resource-priority,replaces
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Min-SE: 1800
User-Agent: Cisco-CUCM11.0
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Expires: 180
Allow-Events: presence, kpml
Call-Info: <sip:10.1.1.60:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
Session-ID: 00000000000000000000000000000000;remote=00000000000000000000000000000000
Cisco-Guid: 1346736640-0000065536-0000177089-0545324554
Session-Expires: 1800
P-Asserted-Identity: "(Operator) Jared TAC" <sip:555666@10.1.1.60>
Remote-Party-ID: "(Operator) Jared TAC"
<sip:555666@10.1.1.60>;party=calling;screen=yes;privacy=off
Contact: <sip:555666@10.1.1.60:5060;transport=tcp>;isfocus

MS发送180振铃。

0000724487: 10.55.100.23: Nov 11 2016 12:40:29.638 -0600: %CCBU_CALL_CONTROL-6-BORDER_MESSAGE:
{Thrd=Pool-sip-thread-17475} %[message_string=postProcessInvitation SipCall-17502,
INBOUND_RECORDING, NEAR_END, State=ALERTED: sending response
SIP/2.0 180 Ringing
Via: SIP/2.0/TCP 10.1.1.60:5060;branch=z9hG4bK201ee04b9db528
To: <sip:4321@10.55.100.23>;tag=ds23933dcf
From: "(Operator) Jared TAC" <sip:555666@10.1.1.60;x-nearend;x-refci=71233302;x-
nearendclusterid=TACOp;x-nearenddevice=SEP002497A964CF;x-nearendaddr=555666;x-
farendrefci=71234316;x-farendclusterid=TACOp;x-farenddevice=10.15.255.254;x-
farendaddr=5255553333>;tag=3695142~47718da5-fef5-1f81-1709-6f389f40258a-71233612
Call-ID: 50459200-8261109d-125c82-2080fe0a@10.1.1.60
CSeq: 101 INVITE
Content-Length: 0
Contact: <sip:4321@10.55.100.23:5060;transport=tcp>
Allow: INVITE, BYE, CANCEL, ACK, NOTIFY, INFO, UPDATE
Server: MediaSense/10.x

MS使用SDP发送200 OK。

0000724519: 10.55.100.23: Nov 11 2016 12:40:29.801 -0600: %CCBU_CALL_CONTROL-6-BORDER_MESSAGE:
{Thrd=Pool-capture-thread-15474} %[message_string=SipCall-17502, INBOUND_RECORDING, NEAR_END,
State=ALERTED send 200 Ok:
SIP/2.0 200 Ok
Via: SIP/2.0/TCP 10.1.1.60:5060;branch=z9hG4bK201ee04b9db528
To: <sip:4321@10.55.100.23>;tag=ds23933dcf
From: "(Operator) Jared TAC" <sip:555666@10.1.1.60;x-nearend;x-refci=71233302;x-
nearendclusterid=TACOp;x-nearenddevice=SEP002497A964CF;x-nearendaddr=555666;x-

farendrefci=71234316;x-farendclusterid=TACOp;x-farenddevice=10.15.255.254;x-farendaddr=5255553333>;tag=3695142~47718da5-fef5-1f81-1709-6f389f40258a-71233612
Call-ID: 50459200-8261109d-125c82-2080fe0a@10.1.1.60
CSeq: 101 INVITE
Content-Length: 309
Contact: <sip:4321@10.55.100.23:5060;transport=tcp>
Content-Type: application/sdp
Allow: INVITE, BYE, CANCEL, ACK, NOTIFY, INFO, UPDATE
Server: MediaSense/10.x
v=0
o=CiscoORA 2153 1 IN IP4 10.55.100.23
s=SIP Call
c=IN IP4 10.55.100.23
t=0 0
m=audio 34370 RTP/AVP 102 0 8 9 18
a=rtpmap:102 MP4A-LATM/90000
a=fmtp:102 profile-level-id=24;object=23;bitrate=64000
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:9 G722/8000
a=rtpmap:18 G729/8000
a=recvonly
]: Border Message

如果没有SDP，您将从CUCM获得此呼叫的ACK，这意味着CUCM未选择编解码器。

0000724529: 10.55.100.23: Nov 11 2016 12:40:29.868 -0600: %CCBU_CALL_CONTROL-6-BORDER_MESSAGE:
{Thrd=DIALOG_CALLBACK.6} %[message_string=SipCall-17502, INBOUND_RECORDING, NEAR_END,
State=ALERTED process ACK, hasBody=false
ACK sip:4321@10.55.100.23:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.1.1.60:5060;branch=z9hG4bK201ee4766a922
Max-Forwards: 69
To: <sip:4321@10.55.100.23>;tag=ds23933dcf
From: "(Operator) Jared TAC" <sip:555666@10.1.1.60;x-nearend;x-refci=71233302;x-nearendclusterid=TACOp;x-nearenddevice=SEP002497A964CF;x-nearendaddr=555666;x-farendrefci=71234316;x-farendclusterid=TACOp;x-farenddevice=10.15.255.254;x-farendaddr=5255553333>;tag=3695142~47718da5-fef5-1f81-1709-6f389f40258a-71233612
Call-ID: 50459200-8261109d-125c82-2080fe0a@10.1.1.60
CSeq: 101 ACK
Content-Length: 0
Date: Fri, 11 Nov 2016 18:40:29 GMT
User-Agent: Cisco-CUCM11.0
Allow-Events: presence, kpml
Session-ID: 00000000000000000000000000000000;remote=59bbdbcf64352fa65ba535ab3695142
]: Border Message

0000724530: 10.55.100.23: Nov 11 2016 12:40:29.868 -0600: %CCBU_CALL_CONTROL-7-TRACE:
{Thrd=DIALOG_CALLBACK.11} -SdpParser: created AUDIO-MediaParameters: host=10.15.255.254,
port=4000, RtpAttributes=[payloadType=18 G729/8000], SENDONLY, pTime=20
0000724531: 10.55.100.23: Nov 11 2016 12:40:29.868 -0600: %CCBU_CALL_CONTROL-4-WARN_MESSAGE:
{Thrd=DIALOG_CALLBACK.6} %[message_string=SipCall-17502, INBOUND_RECORDING, NEAR_END,
State=ALERTED invalid codec or does not have SDP body in Ack

CUCM结束呼叫。

0000724562: 10.55.100.23: Nov 11 2016 12:40:29.871 -0600: %CCBU_CALL_CONTROL-6-BORDER_MESSAGE:
{Thrd=DIALOG_CALLBACK.6} %[message_string=SipCall-17502, INBOUND_RECORDING, NEAR_END,
State=DISCONNECTED sendBye, reason=reject sending
BYE sip:555666@10.1.1.60:5060;transport=tcp SIP/2.0
Max-Forwards: 70
To: <sip:555666@10.1.1.60;x-nearend;x-refci=71233302;x-nearendclusterid=TACOp;x-nearenddevice=SEP002497A964CF;x-nearendaddr=555666;x-farendrefci=71234316;x-

farendclusterid=TACOp;x-farenddevice=10.15.255.254;x-farendaddr=5255553333>;tag=3695142~47718da5-fef5-1f81-1709-6f389f40258a-71233612
From: <sip:4321@10.55.100.23>;tag=ds23933dcf
Call-ID: 50459200-8261109d-125c82-2080fe0a@10.1.1.60
CSeq: 1 BYE
Content-Length: 0
]: Border Message

远端呼叫 :

第二次邀请MS接收 : 呼叫ID:50459200-8261109d-125c83-2080fe0a@10.1.1.60。

INVITE sip:4321@10.55.100.23:5060;transport=TCP SIP/2.0
Via: SIP/2.0/TCP 10.1.1.60:5060;branch=z9hG4bK201ee255dcfc0
Max-Forwards: 69
To: <sip:4321@10.254.128.36>
From: "(Operator) Jared TAC" <sip:555666@10.1.1.60;x-farend;x-refci=71233302;x-nearendclusterid=TACOp;x-nearenddevice=SEP002497A964CF;x-nearendaddr=555666;x-farendrefci=71234316;x-farendclusterid=TACOp;x-farenddevice=10.15.255.254;x-farendaddr=5255553333>;tag=3695143~47718da5-fef5-1f81-1709-6f389f40258a-71233615
Call-ID: 50459200-8261109d-125c83-2080fe0a@10.1.1.60
CSeq: 102 INVITE
Content-Length: 0
Date: Fri, 11 Nov 2016 18:40:29 GMT
Supported: timer,resource-priority,replaces
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Min-SE: 1800
User-Agent: Cisco-CUCM11.0
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
Expires: 180
Allow-Events: presence, kpml
Call-Info: <sip:10.1.1.60:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
Session-ID: 00000000000000000000000000000000;remote=00000000000000000000000000000000
Cisco-Guid: 1346736640-0000065536-0000177090-0545324554
Session-Expires: 1800
P-Asserted-Identity: "(Operator) Jared TAC" <sip:555666@10.1.1.60>
Remote-Party-ID: "(Operator) Jared TAC"
<sip:555666@10.1.1.60>;party=calling;screen=yes;privacy=off
Contact: <sip:555666@10.1.1.60:5060;transport=tcp>;isfocus

MS发送180个振铃 , 用于第二个呼叫。

0000724502: 10.55.100.23: Nov 11 2016 12:40:29.683 -0600: %CCBU_CALL_CONTROL-6-BORDER_MESSAGE:
{Thrd=Pool-sip-thread-17476} %[message_string=postProcessInvitation SipCall-17503,
INBOUND_RECORDING, NEAR_END, State=ALERTED: sending response
SIP/2.0 180 Ringing
Via: SIP/2.0/TCP 10.1.1.60:5060;branch=z9hG4bK201ee255dcfc0
To: <sip:4321@10.254.128.36>;tag=dsb56a3dcf
From: "(Operator) Jared TAC" <sip:555666@10.1.1.60;x-farend;x-refci=71233302;x-nearendclusterid=TACOp;x-nearenddevice=SEP002497A964CF;x-nearendaddr=555666;x-farendrefci=71234316;x-farendclusterid=TACOp;x-farenddevice=10.15.255.254;x-farendaddr=5255553333>;tag=3695143~47718da5-fef5-1f81-1709-6f389f40258a-71233615
Call-ID: 50459200-8261109d-125c83-2080fe0a@10.1.1.60
CSeq: 102 INVITE
Content-Length: 0
Contact: <sip:4321@10.55.100.23:5060;transport=tcp>
Allow: INVITE, BYE, CANCEL, ACK, NOTIFY, INFO, UPDATE
Server: MediaSense/10.x

MS使用SDP发送200 OK。

```
0000724516: 10.55.100.23: Nov 11 2016 12:40:29.800 -0600: %CCBU_CALL_CONTROL-6-BORDER_MESSAGE:
{Thrd=Pool-capture-thread-15474} %[message_string=SipCall-17503, INBOUND_RECORDING, FAR_END,
State=ALERTED send 200 Ok:
SIP/2.0 200 Ok
Via: SIP/2.0/TCP 10.1.1.60:5060;branch=z9hG4bK201ee255dcfc0
To: <sip:4321@10.254.128.36>;tag=dsb56a3dfc
From: "(Operator) Jared TAC" <sip:555666@10.1.1.60;x-farend;x-refci=71233302;x-
nearendclusterid=TACOp;x-nearenddevice=SEP002497A964CF;x-nearendaddr=555666;x-
farendrefci=71234316;x-farendclusterid=TACOp;x-farenddevice=10.15.255.254;x-
farendaddr=5255553333>;tag=3695143~47718da5-fef5-1f81-1709-6f389f40258a-71233615
Call-ID: 50459200-8261109d-125c83-2080fe0a@10.1.1.60
CSeq: 102 INVITE
Content-Length: 309
Contact: <sip:4321@10.55.100.23:5060;transport=tcp>
Content-Type: application/sdp
Allow: INVITE, BYE, CANCEL, ACK, NOTIFY, INFO, UPDATE
Server: MediaSense/10.x
v=0
o=CiscoORA 2152 1 IN IP4 10.55.100.23
s=SIP Call
c=IN IP4 10.55.100.23
t=0 0
m=audio 53368 RTP/AVP 102 0 8 9 18
a=rtpmap:102 MP4A-LATM/90000
a=fmtp:102 profile-level-id=24;object=23;bitrate=64000
a=rtpmap:0 PCMU/8000
a=rtpmap:8 PCMA/8000
a=rtpmap:9 G722/8000
a=rtpmap:18 G729/8000
a=recvonly
]: Border Message
```

CUCM通过SDP发送ACK。对于此呼叫段，选择G729，因为两台服务器都从SDP支持此功能。

```
0000724521: 10.55.100.23: Nov 11 2016 12:40:29.866 -0600: %CCBU_CALL_CONTROL-6-BORDER_MESSAGE:
{Thrd=DIALOG_CALLBACK.11} %[message_string=SipCall-17503, INBOUND_RECORDING, FAR_END,
State=ALERTED process ACK, hasBody=true
ACK sip:4321@10.55.100.23:5060;transport=tcp SIP/2.0
Via: SIP/2.0/TCP 10.1.1.60:5060;branch=z9hG4bK201ee3220aa67f
Max-Forwards: 69
To: <sip:4321@10.254.128.36>;tag=dsb56a3dfc
From: "(Operator) Jared TAC" <sip:555666@10.1.1.60;x-farend;x-refci=71233302;x-
nearendclusterid=TACOp;x-nearenddevice=SEP002497A964CF;x-nearendaddr=555666;x-
farendrefci=71234316;x-farendclusterid=TACOp;x-farenddevice=10.15.255.254;x-
farendaddr=5255553333>;tag=3695143~47718da5-fef5-1f81-1709-6f389f40258a-71233615
Call-ID: 50459200-8261109d-125c83-2080fe0a@10.1.1.60
CSeq: 102 ACK
Content-Length: 259
Date: Fri, 11 Nov 2016 18:40:29 GMT
User-Agent: Cisco-CUCM11.0
Allow-Events: presence, kpml
Session-ID: 00000000000000000000000000000000;remote=59bbdbcfa64352fa65ba535ab3695143
Content-Type: application/sdp
v=0
o=CiscoSystemsCCM-SIP 3695143 1 IN IP4 10.1.1.60
s=SIP Call
c=IN IP4 10.15.255.254
b=TIAS:8000
b=CT:8
```

b=AS:8
t=0 0
m=audio 4000 RTP/AVP 18 101
a=ptime:20
a=rtpmap:18 G729/8000
a=sendonly
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
]: Border Message

CUCM结束呼叫。

```
0000724546: 10.55.100.23: Nov 11 2016 12:40:29.869 -0600: %CCBU_CALL_CONTROL-6-BORDER_MESSAGE:
{Thrd=DIALOG_CALLBACK.6} %[message_string=SipCall-17503, INBOUND_RECORDING, FAR_END,
State=ACTIVE sendBye, reason=local disconnect sending
BYE sip:555666@10.1.1.60:5060;transport=tcp SIP/2.0
Max-Forwards: 70
To: <sip:555666@10.1.1.60;x-farend;x-refci=71233302;x-nearendclusterid=TACOp;x-
nearenddevice=SEP002497A964CF;x-nearendaddr=555666;x-farendrefci=71234316;x-
farendclusterid=TACOp;x-farenddevice=10.15.255.254;x-
farendaddr=5255553333>;tag=3695143~47718da5-fef5-1f81-1709-6f389f40258a-71233615
From: <sip:4321@10.254.128.36>;tag=dsb56a3dfc
Call-ID: 50459200-8261109d-125c83-2080fe0a@10.1.1.60
CSeq: 1 BYE
Content-Length: 0
```

MS将呼叫记录为失败。

```
0000724557: 10.55.100.23: Nov 11 2016 12:40:29.871 -0600: %CCBU_CALL_CONTROL-7-TRACE:
{Thrd=DIALOG_CALLBACK.6} -InMemoryDataBaseAdapter: processing UpdateLocalDB
Session: 745a15454b0e7f62, ERROR, MEDIA_SERVER_ERROR, sipServer=10.55.100.23, version=9,
lastNotifiedVersion=9, fromDN=null, toDN=null, audioChannels=2, videoChannels=0, started: Fri
Nov 11 12:40:29 CST 2016, ended: Fri Nov 11 12:40:29 CST 2016, duration=0sec,
recordingServer=10.55.100.23, ccId=null, ccIp=10.1.1.60, type=PHONE, appType=null, ErrorDetail
=MEDIA_SERVER_ERROR
CallEndPoint: type=NEAR_END, dn=555666, displayName=(Operator) Jared TAC, xRefci=71233302,
device=SEP002497A964CF, conf=false, {SipCall-17502, INBOUND_RECORDING, NEAR_END,
State=DISCONNECTED, CallId: 50459200-8261109d-125c82-2080fe0a@10.1.1.60}, Tracks=[TrackInfo:
type=AUDIO, port=34370, trackNumber=0, repository=/recordedMedia, size=-1, state=ACTIVE,
stateChanged=false, codec=null]
CallEndPoint: type=FAR_END, dn=5255553333, xRefci=71234316, device=10.15.255.254, conf=false,
{SipCall-17503, INBOUND_RECORDING, FAR_END, State=DISCONNECTED, CallId: 50459200-8261109d-
125c83-2080fe0a@10.1.1.60}, Tracks=[TrackInfo: type=AUDIO, port=53368, trackNumber=1,
repository=/recordedMedia, size=-1, state=ACTIVE, stateChanged=false, codec=G729]
```

JSON文件已创建并保存在MS中。

```
0000724560: 10.55.100.23: Nov 11 2016 12:40:29.871 -0600: %CCBU_CALL_CONTROL-6-BORDER_MESSAGE:
{Thrd=Pool-ams-thread-9738} %[message_string=HttpPostClient-9738: executing POST
http://10.55.100.23:8640/ora/SipAdaptorService/SipAdaptor/addOrUpdateSession HTTP/1.1
{"sessionData": {
"callControllerIP": "10.1.1.60",
"callControllerType": "Cisco-CUCM",
"endDate": 1478889629869,
"endPoints": [
{
"clusterid": "TACOp",
"conference": false,
"device": "SEP002497A964CF",
"displayName": "(Operator) Jared TAC",
"dn": "555666",
```

```

"startDate": 1478889629868,
"tracks": [{
"location": "/recordedMedia",
"mediaState": "ACTIVE",
"startDate": 1478889629868,
"track": 0,
"type": "AUDIO"
}],
"type": "NEAR_END",
"xRefci": "71233302"
},
{
"clusterid": "TACOp",
"conference": false,
"device": "10.15.255.254",
"dn": "5255553333",
"startDate": 1478889629868,
"tracks": [{
"codec": "G729",
"location": "/recordedMedia",
"mediaState": "ACTIVE",
"startDate": 1478889629868,
"track": 1,
"type": "AUDIO"
}],
"type": "FAR_END",
"xRefci": "71234316"
}
],
"errorDetail": "MEDIA_SERVER_ERROR",
"operationType": "ADD",
"recordingServer": "10.55.100.23",
"sessionName": "745a15454b0e7f62",
"sipServer": "10.55.100.23",
"startDate": 1478889629868,
"state": "ERROR",
"version": 9
}]]: Border Message

```

CUCM日志

这是CUCM电话BiB的数字分析，该电话呼叫MS拨号模式。b0042422044001是BiB DN。

```

47540157.011 |10:40:29.606 |AppInfo |Digit analysis: match(pi="1", fqcn="",
cn="b0042422044001",plv="5", pss="Directory URI:Internal_pt:Voicemail_PT:UCCX_pt:SAT-TX-8-5-
PT:SAT-TX-OffHrs-PT", TodFilteredPss="Directory URI:Internal_pt:Voicemail_PT:UCCX_pt:SAT-TX-8-5-
PT", dd="4321",dac="0")
47540157.012 |10:40:29.606 |AppInfo |Digit analysis: analysis results
47540157.013 |10:40:29.606 |AppInfo ||PretransformCallingPartyNumber=b0042422044001
|CallingPartyNumber=b0042422044001
|DialingPartition=Internal_pt
|DialingPattern=4321

```

CUCM响应数字分析。以下是呼叫的CI:71233611.

```

47540163.000 |10:40:29.606 |SdlSig |DmPidRes |wait |Da(4,100,214,1) |DeviceManager(4,100,208,1)
|4,100,14,574746.28^10.1.1.60^Port 32978 |[R:N-H:0,N:0,L:0,V:0,Z:0,D:0] Cepn=c0132a35-e434-e61d-
ddda-af59c7a2ce1d Id=3812252328 ccmType=3 DeviceName=MediaSense_RL Pid=4,100,90,41,

```

从BiB到CUCM的CI:71233611.

```
47540163.001 |10:40:29.606 |AppInfo |Digit analysis: wait_DmPidRes- Partition=[d15d1a00-02a2-34a7-e0d9-7d653b500c6d] Pattern=[4321] Where=[],cmDeviceType=[AccessDevice], OutsideDialtone=[0], DeviceOverride=[0], PID=RouteListControl(4,100,90,41),CI=[71233611],Sender=Cdcc(4,100,222,745108)
```

此CI与CI 71233612一起设置。这是CUCM-MS SIP中继连接的CI。这两个CI构成SIP呼叫ID。

```
47540171.000 |10:40:29.606 |SdlSig |CcSetupReq |idle |RouteListControl(4,100,90,41) |Cdcc(4,100,222,745108) |4,100,14,574746.28^10.1.1.60^Port 32978 |[R:N-H:0,N:1,L:0,V:0,Z:0,D:0] CI=71233612 CI.branch=0 sBPL.plid=65 sBPL.l=0 sBPL.pl=5 sBPL.msdl=0 FDataType=0 opId=0 ssType=0 SsKey=0 invokeId=0 resultExp=F bpda=F pi.piid=30 pi.l=0 pi2.piid=30 pi2.l=0 pi3.piid=30 pi3.l=0 FQCGPN=pi=0sil preXCgpn=tn=0npi=0ti=1nd=b0042422044001pi=0sil cgPart= cgPat=b0042422044001 cgpn=tn=0npi=0ti=1nd=8980pi=0si3 cgpnVM= unXCgpn=tn=0npi=0ti=1nd=b0042422044001pi=0sil cName=locale: 1 Name: (Operator) Jared TAC UnicodeName: (Operator) Jared TAC pi: 0 DD=ti=1nd=4321pi=0sil origDD=ti=1nd=4321pi=0sil preXCdpn=tn=0npi=0ti=1nd=4321pi=0si0 preXTagsList=SUBSCRIBER preXPosMatchList=4321 cdPart=d15d1a00-02a2-34a7-e0d9-7d653b500c6d cdPat=4321 cdpn=tn=0npi=0ti=1nd=4321pi=0sil cdpnVMbox= localPatternUsage=5 connectedPatternUsage=0 itrPart= itrPat= LRPart= LRPat= LR=tn=0npi=0ti=1pi=0sil LRVM= LRName=locale: 1 Name: Call Manager UnicodeName: pi: 0 FQOCpdn=ti=1nd=4321pi=0sil ffQLRNum=pi=0sil oPart=d15d1a00-02a2-34a7-e0d9-7d653b500c6d oPat=4321 oCpdn=tn=0npi=0ti=1nd=4321pi=0sil oCdpnVM= oRFR=354 oName=locale: 1 Name: UnicodeName: pi: 0 ts=SUBSCRIBER posMatches=4321 withTags= withValues= rdn.l=0IpAddrMode=0 ipAddrType=0 ipv4=10.15.3.60:0 region=LasVegas_Region capCount=1 ctiActive=F ctiFarEndDev=1 ctiCCMId=4 cgPtyDev=SEP002497A964CF callInst=0 confCallInst=0 OLF=1Supp DTMF=3DTMF Cfg=1DTMF Payload=0isOffNetDev=F bc.l=0 bc.itr=0 bc.itc=0 bc.trm=0 bc.tm=0 maxForwards=70 cgpnMaskedByRedirect=T callingDP= featCallType=0 callingUserId= UnicodeName: muteEnabled=0 associatedCallCI=0 featurePriority=1 nonTargetPolicy=0 unconsumedDigits= suppressMOH=T numPlanPkid =47120c78-3381-7a76-dc37-fc87210358cb networkDomain= bitMask=0 SetupReason=0 routeClass=1 sideACmDeviceType=1 protected=1 ControlProcessType=0 tokens=0 isPresent=F transitCount=0 geolocInfo=null locPkid= locName= deductBW=F fateShareId= videoTrafficClass=Unspecified oFromAnalogDvc=F bridgeParticipantID= callingUsr= remoteClusterID= isEMCCDevice=F lHPMemCEPN= cHPMemCEPN= isParamSet=FTransparentData=null CanSupportSIPTandN=false TransId=0 AllowBitMask=0x0 UserAgentOrServer= OrigDDName=locale: 1 Name: UnicodeName: pi: 0 mCallerId= mCallerName=LatentCaps=null icidVal= icidGenAddr= oioi= tioi= ptParams= receivedPAID= routeHdr= routeCepn= requestURI= PCVFlag=F originallyHadISUP=F isIMSFinalRoute=F IMSMode=0 SideABibEnabled= 0 isCgpnNonPreemptable=F isCdpnNonPreemptable=F origDP= lastRedirectingDP= originalLRG= lastRedirectingLRG= nwLoc=0 rstr= FarEndDeviceName= ReferredByUri= Session-ID: ;remote= hdrMOH=0 CAL={v=ffffffff, m=ffffffff, tDev=F, res=F, devType=0}
```

以下是呼叫ID为50459200-8261109d-125c82-2080fe0a的呼叫的MS邀请。

```
47540202.001 |10:40:29.610 |AppInfo |SIPTcp - wait_SdlSPISignal: Outgoing SIP TCP message to 10.55.100.23 on port 5060 index 95625 [12124747,NET] INVITE sip:4321@10.55.100.23:5060 SIP/2.0 Via: SIP/2.0/TCP 10.1.1.60:5060;branch=z9hG4bK201ee04b9db528 From: "(Operator) Jared TAC" <sip:555666@10.1.1.60;x-nearend;x-refci=71233302;x-nearendclusterid=TACOp;x-nearenddevice=SEP002497A964CF;x-nearendaddr=555666;x-farendrefci=71234316;x-farendclusterid=TACOp;x-farenddevice=10.15.255.254;x-farendaddr=5255553333>;tag=3695142~47718da5-fef5-1f81-1709-6f389f40258a-71233612 To: <sip:4321@10.55.100.23> Date: Fri, 11 Nov 2016 18:40:29 GMT Call-ID: 50459200-8261109d-125c82-2080fe0a@10.1.1.60 Supported: timer,resource-priority,replaces Min-SE: 1800 User-Agent: Cisco-CUCM11.0 Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY
```

```
CSeq: 101 INVITE
Expires: 180
Allow-Events: presence, kpml
Supported: X-cisco-srtp-fallback
Supported: Geolocation
Call-Info: <sip:10.1.1.60:5060>;method="NOTIFY;Event=telephone-event;Duration=500"
Session-ID: 00000000000000000000000000000000;remote=00000000000000000000000000000000
Cisco-Guid: 1346736640-0000065536-0000177089-0545324554
Session-Expires: 1800
P-Asserted-Identity: "(Operator) Jared TAC" <sip:555666@10.1.1.60>
Remote-Party-ID: "(Operator) Jared TAC"
<sip:555666@10.1.1.60>;party=calling;screen=yes;privacy=off
Contact: <sip:555666@10.1.1.60:5060;transport=tcp>;isFocus
Max-Forwards: 70
Content-Length: 0
```

这是协商编解码器失败的呼叫。

让我们跳到MS 200 OK with SDP，了解为何无法设置编解码器。

```
47540802.002 |10:40:29.819 |AppInfo |SIPtcp - wait_SdlReadRsp: Incoming SIP TCP message from
10.55.100.23 on port 5060 index 95625 with 1024 bytes:
```

```
[12124760,NET]
```

```
SIP/2.0 200 Ok
```

```
Via: SIP/2.0/TCP 10.1.1.60:5060;branch=z9hG4bK201ee04b9db528
```

```
To: <sip:4321@10.55.100.23>;tag=ds23933dcf
```

```
From: "(Operator) Jared TAC" <sip:555666@10.1.1.60;x-nearend;x-refci=71233302;x-
nearendclusterid=TACOp;x-nearenddevice=SEP002497A964CF;x-nearendaddr=555666;x-
farendrefci=71234316;x-farendclusterid=TACOp;x-farenddevice=10.15.255.254;x-
farendaddr=5255553333>;tag=3695142~47718da5-fef5-1f81-1709-6f389f40258a-71233612
```

```
Call-ID: 50459200-8261109d-125c82-2080fe0a@10.1.1.60
```

```
CSeq: 101 INVITE
```

```
Content-Length: 309
```

```
Contact: <sip:4321@10.55.100.23:5060;transport=tcp>
```

```
Content-Type: application/sdp
```

```
Allow: INVITE, BYE, CANCEL, ACK, NOTIFY, INFO, UPDATE
```

```
Server: MediaSense/10.x
```

```
v=0
```

```
o=CiscoORA 2153 1 IN IP4 10.55.100.23
```

```
s=SIP Call
```

```
c=IN IP4 10.55.100.23
```

```
t=0 0
```

```
m=audio 34370 RTP/AVP 102 0 8 9 18
```

```
a=rtpmap:102 MP4A-LATM/90000
```

```
a=fmtp:102 profile-level-id=24;object=23;bitrate=64000
```

```
a=rtpmap:0 PCMU/8000
```

```
a=rtpmap:8 PCMA/8000
```

```
a=rtpmap:9 G722/8000
```

```
a=rtpmap:18 G729/8000
```

```
a=recvonly
```

两个CI的介质连接请求。媒体管理器ID:847431。请按照此ID查看为什么无法设置介质。

```
47540844.001 |10:40:29.825 |AppInfo |ARBTRY-ConnectionManager-
wait_MediaConnectRequest(71233611,71233612)
```

```
47540850.001 |10:40:29.826 |AppInfo |SIG-MediaManager-(847431)::wait_MediaConnectRequest,
CI(71233611,71233612), capCount(1,8), mcNodeId(0,0), xferMode(8,16), reConnectType(0), mrid (0,
0) IFCreated(0 0) proIns(0 0), AC(0,0), party1DTMF(1 3 0 0 0) party2DTMF(1 0 0 1
1),reConnFlag=0, connType(2,3), IFHand(0,0),MTP(0,0),MRGL(3cf3871c-f9ac-1a4b-9261-
105cb3c6cb79,17b41810-a72d-d2e0-be30-8dffe05ce048) videoCap(0 0), mmmCallType(0),FS(0,0),
IpAddrMode(0 0) aPid(4, 242, 2044), bPid(4, 83, 215774) EOType(0 0) () honorCodec(0 0)
```

```
47540874.000 |10:40:29.829 |SdlSig |CACInfoRes |waitCACInfoRes |MediaManager(4,100,142,847431)
|ReservationMgr(4,100,111,1) |4,100,14,460202.37477^10.55.100.23^* |[R:N-
```

```
H:0,N:3,L:0,V:0,Z:0,D:0] CI= 0 aCI=71233611 bCI=71233612 pol=0 rsvpStatus=1 aVideoTrafficClass=0
bVideoTrafficClass=0 sessJoined=F staIdx_no_agent=0 locationstatus=( AudioBWReserved) eoSent=F
aAgent: confID =0 ci =0 capCt =0 reg= mtpType =2 agentCt =0 mmCapSet=0 agentAllo =0 RemoAgent=F
DevCap=0 ipAddrMode=0 bAgent: confID =0 ci =0 capCt =0 reg= mtpType =2 agentCt =0 mmCapSet=0
agentAllo =0 RemoAgent=F DevCap=0 ipAddrMode=0 aPort: NumPort =0 bPort: NumPort =0
otherAgentPort: NumPort =0
47540874.001 |10:40:29.829 |AppInfo |DET-MediaManager-(847431) - waitCACInfoRes_CACInfoRes-
qosType=0 videoEsc=0 mNoVideoResvAttempted=1 VideoCall=0
```

区域关系规定这些区域之间有8kbps的最大音频比特率。

```
47540874.002 |10:40:29.829 |AppInfo |DET-MediaManager-(847431)::waitCACInfoRes_CACInfoRes,
rsvp(0,0), E2E RegionBwKbps[ A=8 V = 384 I = 2000000000 ] ,deviceAcaps(0)
deviceBCaps(0),noVideoResv(1), mmAllowedCallType(0x00000000)
47540874.003 |10:40:29.829 |AppInfo |DET-MediaManager-(847431)::mapCapabilitiesToMMCallType -
Call is set to Audio Only - vidCall = 0)
47540874.004 |10:40:29.829 |AppInfo |DET-MediaManager-(847431)::buildMtpXcoderAllocList,
savedConnectionCount=0, QosType=0
47540874.005 |10:40:29.829 |AppInfo |DET-RegionsServer::matchCapabilities-- savedOption=3,
PREF_NONE, regionA=(null) regionB=(null) latentCaps(A=0, B=0) kbps=8, capACount=1, capBCount=8
47540874.006 |10:40:29.829 |AppInfo |DET-MediaManager-(847431)::checkAudioPassThru,
param(bPostMTPAllocation=0,chkTrp=1), capCount(1,8), mtpPT=1, aPT=2
```

Pty1来自LasVegas_Region，设置为(4,20)=G711 ulaw。（这是座席电话）。

Pty2来自SignalHill_Region，具有8个功能。（这是MS SIP中继）。

```
47540874.007 |10:40:29.829 |AppInfo |DET-MediaManager-(847431)::preCheckCapabilities,
region1=LasVegas_Region, region2=SignalHill_Region, Pty1 capCount=1 (Cap,ptime)=( 4,20), Pty2
capCount=8 (Cap,ptime)=( 44,0) (4,20) (2,20) (6,20) (11,20) (12,20) (15,20) (16,20)
47540874.008 |10:40:29.829 |AppInfo |DET-RegionsServer::matchCapabilities-- savedOption=0,
PREF_NONE, regionA=(null) regionB=(null) latentCaps(A=0, B=0) kbps=8, capACount=1, capBCount=8
47540874.009 |10:40:29.829 |AppInfo |RegionsServer: applyCodecFilterIfNeeded - no codecs
remained after filtering so restored original 0 caps
```

由于G711 ulaw使用64kbps的比特率，因此CUCM尝试调用转码器，因此功能不匹配。纠正区域关系可消除问题。

```
47540874.010 |10:40:29.829 |AppInfo |DET-MediaManager-(847431)::preCheckCapabilities, caps
mismatch! Xcoder Req'd. kbps(8), filtered A[capCount=0 (Cap,ptime)=], B[capCount=4 (Cap,ptime)=
(11,20) (12,20) (15,20) (16,20)] allowMTP=0 numXcoderRequired=1 xcodingSide=1
47540874.011 |10:40:29.829 |AppInfo |DET-MediaManager-(847431)::prepareInitialConnectionList,
Party1CapCount=1 Party2CapCount=8 XcoderRequired=1 xcodingSide=1 allowMTP=0
```

要解决此问题，您必须纠正CUCM上的区域关系，以允许区域之间的最大比特率 — 至少64 kbps。建议您为MS创建新区域。将其配置为与旧区域完全相同，但必须将最大比特率增加到至少64 kbps，并确保使用系统默认最大比特率的所有区域必须增加到至少64 kbps。复制MS SIP中继上设置的设备池，将新区域分配给此设备池，将设备池分配给MS SIP中继，重置MS SIP中继。

通用编解码器

在CUCM中，编解码器以(Cap,ptime)形式列出，其中Cap = capability = codex, ptime = 打包时间。下面是您在“Cap”字段中可以看到的重要编解码器列表：

```
G711 Alaw with 64 kbps bit rate = 2 G711 Ulaw with 64 kbps bit rate = 4 G722 with 64 kbps bit
rate = 6 G722 with 56 kbps bit rate = 7
G722 with 48k kbps bit rate = 8
G728 = 10
G729 = 11
```


G729 Annex A = 12

G729 Annex B = 15